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DOCKET CLERK Kelly-Krause PO BOX 12608 DALLAS, TX 75225			HOANG, HIEU T	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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### Office Action Summary

**Application No.**

10/789,946

**Applicant(s)**

BUCKLEY ET AL.

**Examiner**

HIEU HOANG

**Art Unit**

2452

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-15, 17-26 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-15, 17-26 and 28-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ ~~Notes of Informal Patent Application~~
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This office action is in response to the communication filed on 02/26/2010.
2. Claims 2, 16, 27 are canceled.
3. Claims 1, 3-15, 17-26, 28-34 are pending.

***Response to Amendment***

4. The 35 U.S.C. 112 rejection (second paragraph) of claim 25 has been withdrawn due to the amendment.

***Response to Arguments***

5. Applicant's arguments have been fully considered but are moot in view of new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1, 3-15, 17-26, 28-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support for “a transmitter to convey the altered values stored in the storage element to the central database” in claim 1 and similar “conveying” limitations in claims 15, 21, 26, 28, 31, 32, 34 in the specification.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-15, 17-20, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorma et al. (EP 0,781,064 A2, hereafter Jorma, cited in IDS), in view of Bridges et al. (US 2003/0186695, hereafter Bridges), further in view of Whelan et al. (US 7,606,242, hereafter Whelan)

10. For claim 1, Jorma discloses an apparatus for a radio communication system having a mobile node selectably operable at least to communicate packet data with a network part, the network part comprised of a plurality of network portions, a first network portion of the plurality forming a home network associated with the mobile node, said apparatus for at least facilitating selection of with which network portion of

the plurality of network portions that the mobile node communicates, said apparatus comprising:

a storage element embodied at the mobile node, said storage element for storing values defining a database (fig. 24, mobile device memory's database with service list), the database forming a listing identifying at least selected ones of the plurality of network portions together with an indication associated therewith of network-portion capability to provide packet data connectivity with the mobile node to communicate packet data therewith (col. 6 lines 16-31, list of packet data networks available at the mobile device); and

a detector coupled to the storage element and adapted to receive a message from a second network portion identifying values associated with the second network and to responsively alter the values stored in the storage element (col. 4 l. 46-51, col. 5 l. 30-37, mobile device searches for (second) networks and stores networks in an updated list of networks);

a selector adapted to access the database defined at said storage element, said selector for selecting through which of the network portions of the plurality of network portions to communicate the packet data, selection made by said selector at least in part dependent upon the listing formed of the database defined at said storage element (col. 5 lines 15-20, select a packet data supported service from a list).

storing the altered values stored in the storage element (col. 4 l. 46-51, col. 5 l. 30-37)

Jorma does not disclose: said storage element initially provisioned with at least an abridged copy of values stored in a central database.

Bridges discloses the same (fig. 4, [0085], l. 19-23, mobile device has initial copy of PSL/IRDB values in the central database OTAF 100).

It would have been obvious to one skilled in the art at the time of the invention to provide an initial copy of the network list to the mobile device, when the list is too large or needs to be updated thereafter (Bridges, [0085]).

Jorma-Bridges does not disclose: a transmitter to convey the altered values stored in the storage element to the central database.

However, in the same field of endeavor, Whelan discloses synchronizing between mobile unit association list (fig. 1, col. 8 l. 33-40, synchronizing between mobile unit list 34 and central database of roaming control server 12 association lists 16)

It would have been obvious to one skilled in the art at the time of the invention to apply synchronization of association lists of Whelan to Jorma-Bridges. The motivation would be to keep databases of the mobile device and the central database synchronized.

11. For claim 3, Jorma and Whelan do not disclose the network part broadcasts the messages delivered to the mobile node, and wherein said detector selectively detects broadcasts of the messages by the network part.

However, Bridges discloses the same (fig. 4, fig. 2A, [0046], [0074], central OTAF database containing PSL/IRDB information on list of services and providing downloading to mobile devices, [0085], [0125], broadcasting list)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Jorma and Bridges and Whelan to implement service list distribution from a central database.

12. For claim 4, Jorma-Bridges-Whelan further discloses at least selected ones of the network portions of the network part broadcast messages of the values identifying the network portion capabilities, a selected message broadcast by a selected network part containing values identifying the network portion capabilities of the selected network portion from which the message is broadcast (Bridges, [0085], broadcast a message identifying which operator is providing services).

13. For claim 5, Jorma-Bridges-Whelan further discloses the selected message broadcast by the selected network portion is further of values identifying the network portion from which the message is broadcast (Jorma, abstract, which network has which services, Bridges, table 3, [0067]).

14. For claim 6, Jorma-Bridges-Whelan further discloses each network portion of the plurality of network portions is identified by an identification code and wherein the values identifying the network portion contained in the selected message comprises the

identification code (col. 2 lines 39-49, network ID, Bridges, table 3, networks 1 to n identity).

15. For claim 7, Jorma-Bridges-Whelan further discloses the radio communication system comprises a cellular communication system operable generally pursuant to a GSM (Global System for Mobile communications) operating protocol that defines mobile country codes and mobile network codes and wherein the values identifying the network portion contained in the selected message comprise a mobile country code and a mobile network code associated with the network portion from which the message is broadcast (Jorma, col. 2 lines 39-49, network ID comprises country codes and network codes, col. 8 line 24, GSM).

16. For claim 8, Jorma-Bridges-Whelan further discloses each network portion of the at least selected ones of the network portions broadcast the messages upon broadcast channels of a set of broadcast channels and wherein said detector further selectably scans the broadcast channels of the set of broadcast channels to detect the broadcasts of the messages by the selected ones of the network portion (Bridges, [0085], broadcast channel messages to mobile terminal which detects and updates its own database).

17. For claim 9, Jorma-Bridges-Whelan further discloses said detector is further coupled to said storage element, said detector further for storing at least selected



values that define the database at said storage element (Bridges, [0085], store and update).

18. For claim 10, Jorma-Bridges-Whelan further discloses said detector further selectably removes values from the database defined at said storage element (Bridges, [0085], overwrite, update).

19. For claim 11, Jorma-Bridges-Whelan further discloses the database defined at said storage element further indicates availability of the at least selected ones of the plurality of network portions through which to communicate the packet data (Jorma, fig. 9B, packet data service, Bridges, [0085], which operator is providing service).

20. For claim 12, Jorma-Bridges-Whelan further discloses the mobile node is further selectably for communicating voice data and wherein the listing formed of the database defined at said storage element further identifies the at least selected ones of the plurality of network portions together with an indication associated therewith of network-portion capability to provide voice data connectivity with the mobile node to communicate voice data therewith (fig. 12A, cellular network for voice).

21. For claim 13, Jorma-Bridges-Whelan further discloses said selector is further selectably for selecting through which of the network portions of the plurality of network portions to communicate the voice data (fig. 12A).

22. For claim 14, Jorma-Bridges-Whelan further discloses the database forming the listing defined at said storage element is created by downloading thereto of a central database directory (fig. 4, fig. 2A, [0046], [0074], central OTAF database containing PSL/IRDB information on list of services and providing downloading to mobile devices), the database selectably updatable thereafter (col. 4 lines 46-51, search and update a network list with new networks having desired associated capabilities).

23. For claim 33, Jorma-Bridges-Whelan further discloses the operation of receiving messages is further performed subsequent to the operation of storing and wherein the operations of receiving and storing are iteratively performed (Jorma, col. 4 lines 46-51, update a currently stored list, Bridges, table 16, 17, scan periodically).

24. For claim 15, Jorma discloses a method of communicating in a radio communication system having a mobile node selectably operable at least to communicate packet data with a network part comprised of a plurality of network portions, a first network portion of the plurality forming a home network associated with the mobile node, said method for at least facilitating selection of with which network portion of the plurality of network portions that the mobile node communicates, said method comprising:

storing values defining a database at the mobile node, the database forming a listing identifying at least selected ones of the plurality of network portions together with

an indication associated therewith of network-portion capability to provide packet data connectivity with the mobile node to communicate packet data therewith (fig. 24, mobile device memory's database with service list, col. 6 lines 16-31, list of packet data networks available at the mobile device); and

receiving a message from a second network portion identifying values associated with the second network and to responsively alter the values stored in the storage element following the reception of the message from the second network portion (col. 4 l. 46-51, col. 5 l. 30-37, mobile device searches for (second) networks and stores networks in an updated list of networks);

selecting through which of the network portions of the plurality of network portions to communicate the packet data, selection made during said operation of selecting at least in part dependent upon the listing formed of the database defined during said operation of storing (col. 5 lines 15-20, select a packet data supported service from a list).

Jorma does not disclose: storing at least an abridged copy of values stored in stored in a central database to define the database at the mobile device.

Bridges discloses the same (fig. 4, [0085], l. 19-23, mobile device has initial copy of PSL/IRDB values in the central database OTAF 100).

It would have been obvious to one skilled in the art at the time of the invention to provide an initial copy of the network list to the mobile device, when the list is too large or needs to be updated thereafter (Bridges, [0085]).

Jorma-Bridges does not disclose: conveying the altered values stored in the storage element to the central database.

However, in the same field of endeavor, Whelan discloses synchronizing between mobile unit association list (fig. 1, col. 8 l. 33-40, synchronizing between mobile unit list 34 and central database of roaming control server 12 association lists 16)

It would have been obvious to one skilled in the art at the time of the invention to apply synchronization of association lists of Whelan to Jorma-Bridges. The motivation would be to keep databases of the mobile device and the central database synchronized.

25. For claim 17, Jorma-Bridges-Whelan further discloses said operation of detecting is further performed subsequent to said operation of storing and wherein said operations of detecting and storing are iteratively performed (Bridges, table 16, 17, update periodically).

26. For claim 18, Jorma-Bridges-Whelan further discloses the operation, prior to said operation, prior to said operation of detecting, of sending the messages to the mobile node (Bridges, [0085], broadcasting update messages).

27. For claim 19, Jorma-Bridges-Whelan further discloses the messages detected during said operation of detecting are sent to the mobile node by selected network

portions and wherein values contained in the messages are selectably stored during said operation of storing (Bridges, [0085], selectively update).

28. For claim 20, Jorma-Bridges-Whelan further discloses the messages detected during said operation of detecting identify the network portion capabilities of associated network portions of the selected network portions (Jorma, abstract, which network has which services, Bridges, table 3, [0067]).

29. Claims 21-26, 28-32, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bridges, in view of Jorma, further in view of Whelan.

30. For claim 21, Bridges discloses a radio communication network having a plurality of radio access networks, comprising:

- a first radio access network of the plurality of radio access networks forming a home radio access network associated with a mobile node (fig. 3 steps 4-6, [0060], home wireless carrier associated with mobile device);

- a second radio access network of the plurality of radio access networks forming a roam radio access network to the mobile node (fig. 3, steps 6 and 10, [0046], not in home market area or roaming), said second radio access network adapted to broadcast messages forming system identification messages including second radio access network services to the mobile node and to receive a message from the mobile node

indicating services requested (fig. 3, step 14, [0014], obtain SID broadcasted by roaming wireless carrier);

a central database accessible to any of the radio access networks of the plurality of the radio access networks (fig. 2A, fig. 4, central database of radio access networks);

a listing formed at said central database, said listing including a network identity ([0085], PSL/IRDB or preferred system identification list and intelligent roaming database, tables 2, 3).

a core network intercoupling the first radio access network, the second radio access network, and the central database (fig. 2A, 4, networks and OTAF), the mobile node receive message indicating the services at the second radio access network (fig. 3, step 14, obtain service from roaming carrier).

Bridges does not explicitly disclose: indication of services available in a network identified by the network identity.

However, Jorma discloses the same (col. 4 lines 46-51, returns updated list of located networks with services to user)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Jorma and Bridges to implement service selection from a service list distributed from a central database.

Bridges-Jorma does not disclose to convey the mobile node receiving message indicating services at the second radio access network for storage in the listing related to the second radio access network at the central database

However, in the same field of endeavor, Whelan discloses synchronizing between mobile unit association list (fig. 1, col. 8 l. 33-40, synchronizing between mobile unit list 34 and central database of roaming control server 12 association lists 16)

It would have been obvious to one skilled in the art at the time of the invention to apply synchronization of association lists of Whelan to Jorma-Bridges. The motivation would be to keep databases of the mobile device and the central database synchronized.

31. For claim 22, Bridges-Jorma-Whelan further discloses said listing further includes a roaming network indication that identifies a network for use as a roaming network (Bridges, table 18, IRDB, roaming information).

32. For claim 23, Bridges-Jorma-Whelan further discloses the roaming network indication comprises an MCC, Mobile Country Code, and an MNC, Mobile Network Code (Jorma, col. 2 lines 39-49, network ID comprises country codes and network codes).

33. For claim 24, Bridges-Jorma-Whelan further discloses the network identity included at said listing comprises the network identity of a cellular network (Jorma, col. 2 lines 39-49, network PSID).

34. For claim 25, Bridges-Jorma-Whelan further discloses the indication of the services included in said listing is represented in terms of an APN (Jorma, col. 2 lines 39-49, network PSID).

35. For claim 26, Bridges discloses a method for providing a mobile node with network information from a communication network including a first radio access network forming a home radio access network associated with a mobile node and a second radio access network forming a roam radio access network to the mobile node (fig. 2A, 4, home and roaming networks and OTAF), said method comprising:

connecting a central database to a network (fig. 4, central database), the central database including a listing, the listing having an identity of a network, a roaming indication ([0085], PSL/IRDB, system identification list, roaming, table 18 roaming indicator);

providing the mobile node with a copy of the central database connected during said operation of connecting (fig. 2A, download PSL/IRDB to the mobile device);

broadcasting messages forming system identification messages, including second radio access network services, to the mobile node from the second radio access network; receiving a message at the second radio access network from the mobile node indicating services requested (fig. 3, step 10, 14, 16, [0014], obtain services messages broadcast by the roaming network);

the mobile node receive message indicating the services at the second radio access network (fig. 3, step 14, obtain service from roaming carrier).

Bridges does not disclose: an indication of services available in the network.

However, Jorma discloses: an indication of services available in the network (col. 6 lines 16-31, list of packet data networks available at the mobile device);



Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Jorma and Bridges to implement service selection from a service list distributed from a central database to the system of Bridges.

Bridges-Jorma does not disclose conveying the mobile node receive message indicating services at the second radio access network for storage in the listing related to the second radio access network at the central database.

However, in the same field of endeavor, Whelan discloses synchronizing between mobile unit association list (fig. 1, col. 8 l. 33-40, synchronizing between mobile unit list 34 and central database of roaming control server 12 association lists 16)

It would have been obvious to one skilled in the art at the time of the invention to apply synchronization of association lists of Whelan to Bridges-Jorma. The motivation would be to keep databases of the mobile device and the central database synchronized.

36. For claim 28, Bridges-Jorma-Whelan further discloses receiving a first message from the mobile node (Bridges, col. 4 lines 46-51, search command from user); sending a second message to the mobile node, the second message including a network identity and an indication of services available in a network identified by the network identity (Bridges, col. 4 lines 46-51, returns updated list of located networks with services to user)

37. For claim 29, Bridges-Jorma-Whelan further discloses the operation, prior to said operation of receiving, of sending, from the mobile node, the first message (Bridges, col. 4 lines 46-51, search command from user).

38. For claim 30, Bridges-Jorma-Whelan further discloses the operation, subsequent to said operation of sending the second message, of receiving the second message at the mobile node (Bridges, col. 4 lines 46-51, returns updated list of located networks with services to user)

39. For claim 32, Bridges discloses a method in a mobile node capable of packet data communication with a network part, for selecting a radio access network of a plurality of radio access networks in the network part, the network part storing values defining a first database in a central database and the mobile node storing values defining a second database in a storage element, the first and second databases each forming a listing identifying available radio access networks of the plurality of radio access networks together with an indication associated therewith of radio access network capability to provide packet data communication with the mobile node, the method characterized by:

detecting messages received from the available radio access networks when the mobile device is not a party to a communication session ([0014], fig. 3, step 2, initialization state or not in session), the messages having values identifying the radio access network capabilities of the corresponding available radio access networks

([0085], detecting and receiving broadcast updates of PSL/IRDB, which includes network list with roaming information and class of services);

altering the indication of any radio access network capability of any of the available radio access networks of the listing in the second database when a message is of values identifying the radio access network capabilities to be different from identified in the listing ([0078], reprogram the changes in any entry, e.g. CoS);

Bridges does not disclose: selecting a radio access network from the available radio access networks for packet data communication based upon the listing formed of the database defined during said operation of storing and altering.

However, Jorma discloses the same (col. 5 lines 15-20, selecting a network to perform service based on a list of available network with associated supported services)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Jorma and Bridges to implement service selection from a service list distributed from a central database to the system of Bridges.

Bridges-Jorma does not disclose: conveying the altered indication of the radio access network capability in the listing in the second database to the central database.

However, in the same field of endeavor, Whelan discloses synchronizing between mobile unit association list (fig. 1, col. 8 l. 33-40, synchronizing between mobile unit list 34 and central database of roaming control server 12 association lists 16)

It would have been obvious to one skilled in the art at the time of the invention to apply synchronization of association lists of Whelan to Bridges-Jorma. The motivation

would be to keep databases of the mobile device and the central database synchronized.

40. For claim 34, the claim is rejected for the same rationale as in claim 32.

41. For claim 31, Bridges-Jorma-Whelan further a receive part configured to receive a central database listing ([0085, download a PSL/IRDB from a central database to a mobile device), the central database listing having an identity of a network, a roaming indication (Bridges, [0085], PSL/IRDB, system identification list, roaming, table 18 roaming indicator).

### ***Conclusion***

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Aerrabotu et al. US 2004/0198350, US 6,993,336. Roaming indicators and roaming lists.
- Islam et al. US 2006/0104211. Preferred roaming list.
- Nakazawa et al. US 2003/0069008. Preferred roaming list and synchronization.

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-

1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571-272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HH/

Examiner AU 2452

/DOHM CHANKONG/  
Primary Examiner, Art Unit 2452